(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 15 January 2004 (15.01.2004)

PCT

(10) International Publication Number WO 2004/005437 A1

(51) International Patent Classification⁷: 70/04

C10G 70/06,

(21) International Application Number:

PCT/NL2003/000474

(22) International Filing Date:

27 June 2003 (27.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 02077666.2

5 July 2002 (05.07.2002) E

(71) Applicant (for all designated States except US): SABIC HYDROCARBONS BV [NL/NL]; Poststraat 1, NL-6135 KR Sittard (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HUBBERS, Theodorus, Petrus, Everardus [NL/NL]; Akerstraat 158, NL-6417 BR Heerlen (NL). SCHEMBECKER, Gerhard [DE/DE]; Bodelschwinger Berg 27, D-44357 Dortmund (DE). GOTTSCHALK, Axel [DE/DE]; Bermes Feld 46, D-45527 Hattingen (DE). HINDERINK, Antonie, Pieter [NL/NL]; Zomergemstraat 40, NL-4826 CW Breda (NL). LEUNK, Hendrek, Derk [NL/NL]; Vrijheidslaan 12, NL-4533 AA Terneuzen (NL).

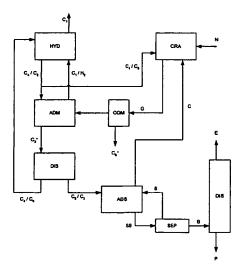
- (74) Agent: SCHMEETZ, M., M., H., J.; DSM Intellectual Property, P.O. Box 9, NL-6160 MA Geleen (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: PROCESS FOR THE RECOVERY OF AN ETHYLENE AND PROPYLENE CONTAINING STREAM FROM A CRACKED GAS RESULTING FROM HYDROCARBON CRACKING



(57) Abstract: Process for the recovery of an ethylene and propylene containing stream from a cracked gas resulting from cracking a hydrocarbon stream, wherein the cracked gas is treated in an absorptive demethanizer with a C_4/C_5 solvent at a temperature between -10 °C and -40 °C to free the cracked gas from methane and hydrogen gas, whereafter the remaining stream is treated by distillation in a distillation unit to obtain a C_4/C_5 containing stream and the ethylene and propylene containing stream; whereafter the C_4/C_5 stream is treated with a hydrogen containing stream in a hydrogenation unit, whereafter a part of the hydrogenated C_4/C_5 stream is cooled to a temperature between -10 °C and -40°C and recycled to the absorptive demethanizer and a part of the hydrogenated C_4/C_5 stream is separated.

